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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,122	05/05/2005	Andreas Csaba Szentistvany	URQU.P-014	2656
57381	7590	11/02/2006		
Marina Larson & Associates, LLC P.O. BOX 4928 DILLON, CO 80435				
			EXAMINER KRUER, STEFAN	
			ART UNIT 3654	PAPER NUMBER

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/524,122	Applicant(s) SZENTISTVANY, ANDREAS CSABA	
	Examiner Stefan Kruer	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 14 and 20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 - 14 is/are allowed.
- 6) ☒ Claim(s) 1 - 12 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 8 and 15 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watson (GB 2,339,419 A) in view of Jones et al (GB 2,322,450 A).

Re: Claim 1, Watson discloses:

- a stair lift (not depicted) including a stair lift rail (2),
- a carriage (1) mounted on said rail for movement there along,
- an over-speed braking means (in part 8, 20) to brake said carriage along said rail when the speed of said carriage exceeds a pre-determined value (Page 7, Line 12);

however, Watson is silent regarding a chair, its mounting on said carriage and an angle determining means.

Attention is directed to Jones et al who teach a dynamic modeling of their stair lift chair (A, Fig. 7) pivotally mounted on said carriage, whereby the pivoting occurs about "the axis of rotation -P- ... the centre of the bearing about which the seat frame rotates" (Page 6, Line 11), and an angle determining means (C), whereby a "...control loop maintains the... assembly as near as possible to the vertical plane throughout the travel of the stair lift ... to ensure suitable safety..." (Page 4, Line 3). Jones et al teach further that deviation beyond a set range should therefore lead to engagement of a brake (Page 4, Line 12).

It would have been obvious to one having ordinary skill in the art to modify the invention of Watson with the teaching of Jones et al to provide a stair lift having suitable safety means to prevent the potential of discomfort to, or ejection of, the passenger.

Re: Claim 2, Watson discloses his an over-speed braking means comprising a speed sensing means (5 – 7), to electronically sense the speed of said carriage.

Re: Claim 3, Watson discloses his speed sensing means comprising a roller (3) for engagement with said rail, and having means to determine the speed of rotation (5 – 7) of said roller.

Re: Claim 4, it would have been an obvious matter of design choice to provide an electromagnetic sensor of the instant invention in lieu of the optical sensor of Watson, since applicant has only stated a preference for an electromagnetic sensor (Page 5, Line 3), yet has not disclosed that such sensor solves any stated problem. It appears that the invention would perform equally well with an optical sensor.

Re: Claims 5 and 15, Watson discloses his speed output signal indicating a speed, said output signal compared to a pre-determined maximum carriage speed, and, in the event said output signal exceeds said pre-determined speed, said over-speed braking means (in part 8) triggers a command signal to a solenoid, thereby causing a brake member (20) to engage with said rail.

Re: Claims 6 and 16 - 19, Watson discloses his microprocessor (8) as a component of his over-speed braking means, said microprocessor being programmed (Pages 5 and 6, Lines 12 and 27, respectively) to receive an output signal regarding speed and, in response to said output signal indicate a speed for comparison to a pre-determined carriage speed, whereby a command signal to a solenoid (27) is generated if the speed is in excess of pre-determined carriage speed.

Re: Claim 7, Watson discloses his microprocessor (8) programmed for receiving and generating a speed output signal and a command signal to said solenoid, respectively, for the engagement of his braking member (20); however, he is silent regarding angle determining means.

As reviewed in Claim 1, Jones et al teach their angle determining means (C) and the engagement of their brake should their chair angle exceed a pre-determined angle (Page 4, Line 11), in keeping with their recommendation for "suitable safety circuits".

It would have been obvious to one having ordinary skill in the art to modify the reference of Watson with the teaching of Jones et al to provide a stair lift having a programmable logic controller to accommodate multiple sensors for the benefits of a more encompassing safety control scheme, greater applicability and a common interface.

Re: Claim 8, Watson discloses:

- a stair lift rail (2),
- a carriage (1) mounted on said rail for movement there along,
- a braking means (in part 8, 20) to brake said carriage along said rail,
- speed sensing means (5 – 7),
- and control means including a microprocessor (8) operable to receive signals from said speed sensing means, compare said signals to a pre-determined maximum, and generate a command signal to operate a braking means (in part 20, 27).

however, Watson is silent regarding a chair, an angle determining means and different angles of said rails.

Attention is directed to Jones et al who teach an angle determining means (C) for producing a signal of angular displacement of their stair lift chair (A, Fig. 7) and a control loop to compare such to a pre-determined range, whereupon said displacement is in excess of said range, "...some sort of brake is engaged" as a recommended means "...to ensure suitable safety..." (Page 4, Line 12). Furthermore, Jones et al teach the need for their angular determining means "when the carriage changes from one gradient to another..." (Page 1, Line 10).

It would have been obvious to one having ordinary skill in the art to modify the invention of Watson with the teachings of Jones et al to provide a stair lift having suitable safety means as afforded by conventional control systems, as well as the ability to accommodate change(s) in grade.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gisske et al in view of Bartlet (5,230,405).

Re: Claim 11, Gisske et al disclose:

- a drive motor (25) to drive a carriage (22) along a rail (not depicted),
- an over-speed governor (112 in combination with 42) operable to brake said carriage with said rail (Col. 7, Line 61),
- limit engagement means (60, 58) operable independently of said over-speed governor and positioned to engage limit stops at each end of the rail (14, 16),
- and wherein said over-speed governor and said limit engagement means actuate a common isolation switch (not depicted, internal to controller) to disengage the drive motor;

however, Gisske et al disclose their limit stops (60) comprising infrared transmitters as a component of their inventive means to reduce wiring and afford greater flexibility to their installation.

Attention is directed to Bartlet who teaches their limit stops (105) as mechanical devices mounted on both travel-directional sides of his carriage for engagement with limit engagement means (103), said mechanical limit stops being known in the art.

Though the limit stops of Bartlet are mounted on his carriage, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mechanical limit stops at the end of the rails, since it has been held that a merely reversal of the essential working parts of a device involves only routine skill in the art. *In re Einstein*, 8 USPQ 167.

Re: Claim 12, Gisske et al disclose their carriage as powered by a battery (74), however they are silent as to their charging means.

Bartlet, however, teaches his limit engagement means (103) having means (107) to convey current from his rail (102) to a battery (250) located within his carriage (104), for charging his battery when said carriage is at each end of said rail.

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It would have been obvious to one having ordinary skill in the art to modify the invention of Gisske et al with the teaching of Bartlet to enable charging of the battery at the landings for points affording sufficient time for recharging.

Regarding Claim 9, the components of Claim 9 would necessarily have to interact in order for the device to function. It would have been obvious to perform all the method steps of claim 9 when actuating the device of Watson as modified by Jones et al above, in a usual and expected fashion, in as much as the method claims recite no limiting steps beyond actuating each of the components.

Regarding Claim 10, the need to test primary components, control units and their interaction is well known to the art and critical in quality control, particularly prior to commissioning of equipment. It would have been obvious to perform all the method steps of claim 10 when producing the devices of Gisske et al as modified by Bartlet above, in a usual and expected fashion, in as much as the method claims recite no limiting steps beyond the cooperation by each of the components.

Allowable Subject Matter

Claims 13 - 14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 13 contains allowable subject matter because the teachings of the prior art of record taken as a whole do not show or render obvious the combination set forth including the "...when said carriage is stationary, said solenoid may be energized and de-energized without causing displacement of said braking member..." .

Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 19 September 2006 have been fully considered but they are not persuasive.

The terms "including" and "comprising" are conventionally known under U.S. practice and are considered as related words, whereby the term "including" entails a non-limited scope of elements and "comprising" means a definitive scope of elements.

With respect to the brake of Jones, the brake is to be engaged once an excessive angle of deviation of his chair has been reached; thereby stating an ultimate, corrective measure for purpose of safety. Jones, therefore, introduces the concept of braking the speed of his stairlift should the chair, while following the changing gradient as designed for "normal stairlift operating speeds", be displaced beyond a set (maximum) angle of deviation. Whereas the instant invention discloses a pin and slot device affording a finite range of displacement of the chair, the pin is for purpose of an abutment.

With respect to the arguments pertaining to Claim 11, Gisske et al disclose the use of infrared transmitters as limit stops, in keeping with the claim language. The use of wireless limit stops in lieu of the (mechanical) limit stops of the instant invention and as known in the art is merely an alternative technology for the same purpose.

With respect to the existence of a common isolation switch internal to the controller of Gisske et al, the controller is a microprocessor having micro-controllers of which one is positioned within the motor drive unit and inherently has common switching for disengagement of the motor upon inputs from numerous sensors, etc.

With respect to the Bartlet, the teaching of limit engagement means conveying a charging current from said rail to a battery is implicitly established.

Finally, controlled systems, even when tailored to specific applications/installations, undergo testing and start-up procedures. Furthermore, in that the prior art anticipates the flexibility of having programming features that can be optionally selected in the field, field- and factory testing are inherent to the art.

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Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Kruer whose telephone number is 571.272.5913. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571.272.6928. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866.217.9197 (toll-free).

SHK 
24 October 2006


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